UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 07 2011

REPLY TO THE ATTENTION OF:
(AR-18J)

Matthew Stuckey
Chief
Permits Branch
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204

Dear Mr. Stuckey:

We have reviewed the Indiana Department of Environmental Management's (IDEM) draft prevention of significant deterioration (PSD) permit for modifications to ThyssenKrupp Waupaca, Inc. Plant 5 in Tell City, Indiana (permit number 123-29490-00019) and have the following comments.

1. The emission totals in the second table on page 8 of the technical support document (TSD) appear to be based on past potential-to-future potential emissions. The last row of this table compares these amounts to the PSD significance thresholds. The purpose of this comparison is not clear since the PSD rules do not provide for an applicability test based on a potential-to-potential test. For example, the total particulate matter (PM) emissions increase from the cupolas and casting lines are listed as zero in this table. The four-page PM calculations document that is attached to the permit, on the other hand, more accurately shows emissions increases from these units using an actual-to-projected-actual (ATPA) comparison. IDEM should revise this table to avoid confusion on the basis for the PSD applicability determination for this project.

2. Appendix A of the TSD calculates a 46,655 tons per year (tpy) increase in carbon dioxide (CO2) for this project based on a coke usage throughput increase of 25 percent. Please clarify the basis of the formula and emission factor used to determine this CO2 emissions total.

3. Page 9 of the TSD states that there are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) applicable to this proposed modification. The permit should clarify that units at this source continue to be subject to NESHAP Subpart EEEEE. In other words, no *new* NESHAP requirements apply to this source as a result of this modification, but Subpart EEEEE applies as stated in Section E of this permit.

4. Page 8 of the TSD shows PM_{10} past actual emissions of 336.7 tpy and PM_{10} projected actual emissions of 330.3 tpy with a total increase of 6.4 tpy for existing units. The past actual and projected actual numbers appear to be reversed in this table. A four-page PM calculations document attached to the permit shows what we presume is the correct arrangement of 330.3 tpy for past emissions and 336.7 tpy for projected emissions. When added with the proposed 2.8 tpy in potential emissions from new unit P34, the PM_{10} increase for the modification is listed as 9.2 tpy, which is below the 15 tpy PSD significance threshold.

5. Permit condition D.5.9 states that "Compliance with these limits will ensure that the PM_{10} emissions from the proposed modification (P34 – Desulfurization Ladle) is less than 15 tons per twelve consecutive month period. . . ." This language suggests PM_{10} emissions from unit P34 itself is being limited to 15 tons whereas we believe the intent of the condition is to limit PM_{10} emissions increases from this project (P34 emissions plus emissions increases from other modified units) to less than 15 tons per twelve month period. This permit language should be clarified.

6. The TSD states that IDEM has determined that PM_{10} is a reasonable surrogate for $PM_{2.5}$ for the purposes of this permit. Permit condition D.5.9 only addresses limiting PM_{10} emissions to less than 15 tons over a 12 consecutive month period. In order to properly limit emissions below the PSD significance threshold, the permit must include a demonstration of why the PM_{10} limit is a reasonable surrogate for $PM_{2.5}$. Without such a demonstration, the $PM_{2.5}$ emissions increase from the modification must be limited to less than 10 tons over a 12 consecutive month period to avoid PSD.

7. Since the permit relies on an ATPA calculation to determine PSD applicability for particulate emissions, the source must maintain a record of the actual emissions from the modified units for a period of 5 or 10 years following the resumption of regular operations after the change. (326 IAC 2-2-8(b)(3))

8. The permit does not include a sulfur dioxide, nitrogen oxides, carbon monoxide, or volatile organic compounds best available control technology (BACT) analysis or BACT limits for ductile iron treatment stations (P35) and the new desulfurization ladle (P34). Since this modification triggers PSD for these pollutants, the permit must address BACT for all modified units.

If you have any further questions, please contact Sam Portanova, of my staff, at (312) 886-3189.

Sincerely,

Pamela Blakley

Pamela Blakley
Chief
Air Permits Section